

U.S. Patent Application Serial No. **10/594,546**

Amendment filed January 21, 2009

Reply to OA dated October 17, 2008

**REMARKS**

Claims 1, 2, 4-10, and 12-16 are currently being examined in this application, and stand rejected. Claim 1 is an independent claim in this pending application, with claims 2-16 depending ultimately from claim 1. Claims 1 and 8 have been amended to more distinctly claim and point out that which the applicants regard as their invention. Claims 3 and 11 were previously canceled. Claims 2 and 10 are canceled by this response. The applicants respectfully submit that no new matter has been added, and it is believed that these amendments are fully responsive to the Office Action dated **October 17, 2008**.

The Office Action rejects claims 2 and 8-10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Applicants respectfully note that claims 2 and 10 are canceled herein, and that claim 8 is amended to now depend upon claim 1. As such, the rejection of claims 2 and 10 is now moot. Further, due to the amendment of claim 8 to depend from claim 1, withdrawal of the rejection of claims 8 and 9 is now in order and respectfully solicited.

The Office Action rejects claims 1, 2, 4-10, and 12-16 under 35 U.S.C. § 103(a) as being unpatentable over Price (U.S. Patent No. 5,439,593). Because claims 2 and 10 have been canceled by this response, the rejection under Price of claims 2 and 10 have been rendered moot. Among

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other assertions, the Office Action alleges that the cap 3 of Price (shown in Fig. 5) forms an abutting portion, wherein the outlet of one cartridge appears to perfectly match the inlet of the next cartridge (See Office Action, page 5, lines 11-15).

The Applicants assert that Fig. 5 of Price discloses a cartridge 32 with upper frits 22, lower frits 22, and a sorbent 21 (see Fig. 2). A self-locking female luer-conformable tapered seal surface 5 is formed on a cap 3 (Fig. 1). A self-locking male luer-conformable tapered seal surface 13 is formed on an upper-side body 2' (Fig. 1). This formation causes the female luer and the male luer to be connected to each other.

However, a receiving portion of an outflow side frit 22 (which corresponds to a stopper part 1f that supports the outer peripheral edge of the outflow side frit 5 in the present invention) supports a portion near the middle of the outflow side frit 22. Thus if two cartridges 32 (Fig. 5 of Price) are connected to each other as shown in Fig. 4 of the present invention, without sleeves, the self-locking male luer-conformable tapered seal surface 13 formed on an upper-side body 2' (Fig. 1) connects to a self-locking female luer-conformable tapered seal surface 5 formed on a cap of a cartridge located in a lower-side (Fig. 1).

In this situation, the inner surface (to which a side surface of a sorbent 21 (Fig. 1) is abutting) of the body 2 of the cartridge 32 located below does NOT continue to the inner surface (to which a

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side surface of a sorbent 21 (Fig. 1) is abutting) of the body 2 of the cartridge 32 located above. Thus, it is not substantially flush therewith in the fitted state of the two cartridge bodies, as shown in Fig. 4 of the present invention.

Accordingly, the two cartridges 32 of Fig. 5 of Price connect to each other, and the receiving portion of the outflow side frit 22 forms a large dead space. This results in specimen or solution collecting, decrease of a connection of the target component, as well as problems generated by collected specimen or solution when extracting the target component next time, etc.

Further, the applicants believe that the Office Action misconstrues the abutting step part 1e of the present invention to be the stopper part 1f. As shown in Fig. 4, “the abutting step part (1e)” is a portion to receive the lower end of the other cartridge body inserted from an upper end opening of the cartridge body into the cartridge body. Fig. 4 of the present invention shows 1e as the abutting step part. There, the abutting step part 1e is above, and substantially flush to, the stopper part 1f. Thus, the stopper part 1f supports the outflow frit.

Further, there may be confusion from fourth line from the bottom of page 9 of the former remarks, wherein this discrepancy arose. There “the stepper part” described therein should read as “the stopper part” because of the sign 1f.

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Thus, the structure disclosed by Price differs from that of the present invention. Anticipation under § 102 requires strict identity, that is that each and every element of the claim be contained in a single reference, Price does not anticipate claim 1. Further, one of ordinary skill in the art would not understand Price disclose this feature of claim 1, thus claim 1 is not rendered obvious either.

As such, claim 1 is now in condition for allowance. Withdrawal of the rejection of claim 1 in light of Price is now in order and respectfully solicited.

Due to their dependence upon claim 1, claims 4-9 and 12-16 are also now in condition for allowance and believed to be patentable. Withdrawal of the rejection of these claims in light of Price is now in order and respectfully solicited.

The Office Action rejects claims 1, 3-10, and 12-16 stand rejected under 35 U.S.C. §§ 102(a) or (e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Cook et al. (U.S. Patent No. 6,761,855). Because claims 2 and 10 have been canceled by this response, the rejection under Price of claims 2 and 10 have been rendered moot.

The present invention has an abutting step part formed on the inner surface of the cartridge body. The abutting step part, being abutted to a lower end of the other surface of the cartridge body, is then inserted from an upper end opening of the cartridge body, is the inserted through the upper

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end opening into the cartridge body. However, Cook does not disclose this step as indicated by the Office Action or Fig. 3.

This is because Cook has an inclined step part below the upper cavity portion 20 of Fig. 2 of Cook. Fig. 2 shows that a lower end of another column 10' does not abut thereto in a state where another column 10' is connected (See Fig. 3). Accordingly, Cook does not disclose the abutting step part of the present invention.

Cook only discloses a general method of connecting a male luer 60' and a female luer, without disclosing the particular structure of the present invention. That is, Cook shows that its lower column 10 does not have an abutting step part to which the lower end of the upper column (another column 10') abuts. Accordingly, there is a step portion between the inner surface (a portion forming the lower orifice 16) of the upper column (another column 10') and the inner surface (the inner surface of the central cavity portion 30, the inner surface (the inner surface of the central cavity portion 30, the inner surface to which the out-side surface of the lower tip 60 of another column 10' abuts) of the lower column (column 10). Thus, those inner surfaces are not continued to each other so as to be substantially flush.

More succinctly, Cook has a step part between inner surfaces of upper and lower cartridge bodies (column 10, 10'). But, in the present invention, whole inner portions are formed in a state of

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fluidity and linear shape. Alternatively, the present invention enables specimen or solution to flow linearly and smoothly, whereas Cook does not allow such action.

As such, claim 1 is now in condition for allowance. Withdrawal of the rejection of claim 1 in light of Cook is now in order and respectfully solicited.

Due to their dependence upon claim 1, claims 4-9 and 12-16 are also now in condition for allowance and believed to be patentable. Withdrawal of the rejection of these claims in light of Cook is now in order and respectfully solicited.

The Office Action rejects claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Price (U.S. Patent No. 5,439,593) or Cook et al. (U.S. Patent No. 6,761,855) in view of either August et al. (U.S. Patent No. 6,530,288) or Serenko et al. (U.S. Patent No. 5,989,424). The Office Action also rejects claim 6 under 35 U.S.C. § 103(a) as being unpatentable over either Price (U.S. Patent No. 5,439,593) or Cook et al. (U.S. Patent No. 6,761,855) in view of either August et al. or Serenko et al. in further view of Muller et al. et al. (U.S. Patent No. 4,732,687) and Radnoti (U.S. Patent No. 4,055,498). However, because these secondary references fail to disclose the elements of claim 1, as discussed above in reference to the Price and Cook references, the cited combination of references does not render obvious claims 5 and 6.

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Claims 5 and 6 are believed to be patentable and now in condition for allowance.  
Withdrawal of the rejections of claims 5 and 6 under 35 U.S.C. § 103(a) is now in order and  
respectfully solicited.

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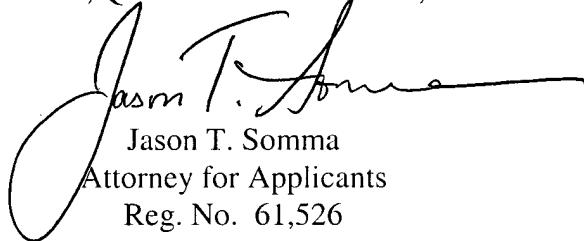
In view of the aforementioned amendments and accompanying remarks, claims 1, 2, 4-10, and 12-16 are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees that may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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